



# A STUDY TO ASSESS THE KNOWLEDGE REGARDING THE PREVENTION OF OCCUPATIONAL HEALTH HAZARDS AMONG THE STAFF NURSES WORKING IN THE HOSPITAL

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## ABSTRACT

It is widely acknowledged that nurses are a crucial component of the healthcare system. They are an integral part of clinical services and have primary responsibility for a significant proportion of patient care in most healthcare settings. Nurses are prone to occupational hazards and injuries in the course of their day to day activities in the health care settings. Given the nature of nursing working environment, responsibilities and duties, nurses are on the frontline of numerous occupational hazards such as biological/infectious disease, chemical risks, environmental/ mechanical risks, physical risks, and psychosocial risks. The safety of nurses from workplace-induced injuries and illnesses is important to nurses themselves as well as to the patients they serve. Aim of this study is to assess the knowledge regarding the prevention of occupational health hazards. Present study comprise of 50 samples nursing staff working in the selected hospital of Ahmedabad City.

**KEYWORDS:** Health, Hazard, Nursing Staff.

## INTRODUCTION:

Nursing is an enviable and lifesaving profession in the Indian setting, but as applicable to other areas of human endeavour, the practitioners are exposed to many occupational hazards, some of which produce physical disabilities while others if care is not taken, may lead to life threatening diseases like HIV/AIDS. Nursing and other related healthcare occupations are demanding professions. Men and women in these jobs are responsible for providing high-quality health care, though their working environments such as hospitals, clinics and laboratories, are increasingly recognized as hazardous workplaces (Stonerock, 2004). In particular, inhalation exposures and their potential respiratory health effects are of growing concern among workers in healthcare settings. Findings that describe the asthma genic and allergenic properties of specific products such as Natural Rubber Latex (NRL) gloves provided the basis for efforts to reduce such exposures in many healthcare settings.

However, repeated exposures to cleaning agents and latex products in the workplace remain important, yet unavoidable risk factors for nurses. The roles and responsibilities of nurses and other healthcare workers vary widely, as do the specific occupational tasks and products used. Nonetheless, certain aspects of medical workplaces are ubiquitous. For example, alkaline glutaraldehyde, a disinfectant used to sterilise medical instruments has been associated with respiratory symptoms among nurses, hospital technicians and respiratory therapists. Surveillance data for cases of work-related asthma indicate that healthcare workers are the most commonly reported industry group (16%), among which cleaning products (e.g., ammonia, bleach, disinfectants and other cleaning agents) (24%), latex (20%), glutaraldehyde (9%) and formaldehyde (5%) appear as common work related hazards (Myers and Jackson, 1993).

The frequency, with which latex was reported as one of the contributing exposures to hazard among workers in nursing occupations, provides further evidence that latex is still a major concern for workers in healthcare settings, where dermal and respiratory latex exposures have been associated with symptoms among hospital personnel. Nursing is associated with a lot of hazards, especially in hospitals, nursing care facilities, and clinics, where nurses may care for individuals with infectious diseases. In view of this, nurses must observe rigid standardised guidelines to prevent diseases and other dangers such as those posed by radiation, accidental needle sticks, chemicals used to sterilize instruments, and anaesthetics. In addition, they are vulnerable to back injury when moving patients, shocks from electrical equipment, and hazards posed by compressed gases. Nurses who work with critically ill patients also may suffer emotional strain from observing patients in agony and from close personal contact with patients' families.

## REVIEW OF LITERATURE:

Research studies are taken within the context of an existing knowledge base. Researcher undertakes a literature review to familiarize with that knowledge base." the review of literature is defined as a board, comprehensive in depth systematic and critical review of scholarly publication, print materials, audio-visual materials and personal communications. Polit Hungler (2008)

According to Abdullah and Levine [1974], a review of literature provides a base of future investigations. It justifies the need for replications of the study. It also helps to establish a comprehensive body of scientific knowledge in a professional disciplinant helps the investigator to develop a deeper insight in to a prob-

lem and illuminates about significance of the new studies. Polit Hungler (2008)

Review of literature is an important step in the development of any research project. It helps the investigators to analyse what is already known about the topic and to describe methods of inquiry used in earlier work including the success and short comings. This chapter deals with the collected information relevant to the present study, through the published and unpublished materials. These publications were the foundations to carry out the research work. This literature involves reference of various books, research study, journals etc.

Occupational health hazards associated with nursing practice are widely spread and the degree is determined by the hospital setting and its available care facilities. The common occupational health hazards in nursing are:

- Biological example tuberculosis; Viruses example, Human immunodeficiency virus (HIV), hepatitis B virus (HBV) and other infectious conditions.
- Chemicals example: Use of exposure to antineoplastic and antiviral agents: sterilants e.g ethylene and formaldehydes.
- Physical: radiation, poor lightening system, and noise
- Psychological: Stress and work overload (Ofuoma et al 2008, Ajayi, et al, 2007, Rogers 2001).

## RESEARCH OBJECTIVE:

1. To assess the knowledge regarding the prevention of occupational health hazards.
2. To find out the association between the knowledge regarding prevention of occupational health hazards among the staff nurses with selected demographic variables.

## SAMPLE SIZE:

The sample size of a statistical sample is the number of observation that constitutes it.

Present study comprise of 50 samples nursing staff working in the selected hospital of Ahmedabad City.

## DATAANALYSIS:

### 1. AGE GROUP AND LEVEL OF KNOWLEDGE

AGE	FREQUENCY	AVG MARKS OUT OF 30	TOTAL MARKS	OUT OF MARKS	% OF MARKS OBTAINED
21 to 30 Years	21	17.10	359	630	57%
31 to 40 Years	17	15.41	262	510	51%
41 to 50 Years	6	16.00	96	180	53%

51 to 60 Years	6	16.83	101	180	56%
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#### INTERPRETATION:

From the above table it can be concluded that nursing staff with age group between 20 to 30 years have highest knowledge regarding prevention of occupational health hazards. Nursing staff with age 51 and above have average marks 16.83 while nursing staff with age group 41 to 50 years have average marks 16.00.

#### 2. GENDER GROUP AND LEVEL OF KNOWLEDGE

GENDER	FREQUENCY	AVG MARKS OUT OF 30	TOTAL MARKS	OUT OF MARKS	% OF MARKS OBTAINED
Female	42	16.14	678	1260	54%
Male	8	17.50	140	240	58%

#### INTERPRETATION:

From the above table it can be concluded that male nursing staff has higher knowledge than female nursing staff regarding prevention of occupational health hazards

#### 3. EDUCATION GROUP AND LEVEL OF KNOWLEDGE

EDUCATION	FREQUENCY	AVG MARKS OUT OF 30	TOTAL MARKS	OUT OF MARKS	% OF MARKS OBTAINED
ANM	12	17.00	204	360	57%
GNM	32	16.22	519	960	54%
B.SC Nursing	3	20.33	61	90	68%
Post Basic B.SC	3	11.33	34	90	38%

#### INTERPRETATION:

From the above table it can be concluded that nursing staff with B.SC Nursing have highest knowledge regarding prevention of occupational health hazards. Nursing staff with ANM qualification stood at number 2 position in knowledge regarding prevention of occupational health hazards while GNM nursing staff stood at number 3 position and Post Basic B.SC have lowest knowledge regarding prevention of occupational health hazards.

#### 4. YEARS OF EXPERIENCE GROUP AND LEVEL OF KNOWLEDGE

EXPERIENCE	FREQUENCY	AVG MARKS OUT OF 30	TOTAL MARKS	OUT OF MARKS	% OF MARKS OBTAINED
0-3 Years	8	14.88	119	240	50%
4-6 Years	19	16.89	321	570	56%
7-10 Years	7	13.86	97	210	46%
10 Years and above	16	17.56	281	480	59%

#### INTERPRETATION:

From the above table it can be concluded that nursing staff with more than 10 years of experience have highest knowledge regarding prevention of occupational health hazards. Nursing staff with 4-6 years of experience stood at number 2 position in knowledge regarding prevention of occupational health hazards while staff with 0-3 years of experience stood at number 3 position whereas staff with 7-10 years of experience have lowest knowledge regarding prevention of occupational health hazards.

#### 6. WORKING AREA GROUP AND LEVEL OF KNOWLEDGE

WORKING AREA	FREQUENCY	AVG MARKS OUT OF 30	TOTAL MARKS	OUT OF MARKS	% OF MARKS OBTAINED
General ward	32	17.19	550	960	57%
ICU	4	15.00	60	120	50%
OT	5	14.60	73	150	49%
Any Other	9	15.00	135	270	50%

#### INTERPRETATION:

From the above table it can be concluded that nursing staff working in General ward area have highest knowledge regarding prevention of occupational health hazards. Nursing staff working in ICU and Other area stood at number 2 position in knowledge regarding prevention of occupational health hazards while staff

working in OT area have lowest knowledge regarding prevention of occupational health hazards.

#### FREQUENCY AND PERCENTAGE WISE DISTRIBUTION OF KNOWLEDGE REGARDING PREVENTION OF OCCUPATIONAL HEALTH HAZARDS

KNOWLEDGE	FREQUENCY	PERCENTAGE
Adequate (21-30)	9	18%
Moderate (11-20)	36	72%
Inadequate (0-10)	5	10%

#### INTERPRETATION:

From the above table it can be concluded that 72% of the nursing staff have moderate knowledge regarding prevention of occupational health hazards while 18% of the nursing staff have adequate knowledge regarding prevention of occupational health hazards and 10% of the nursing staff have inadequate knowledge regarding prevention of occupational health hazards.

#### CONCLUSION:

In this study relation between knowledge regarding prevention of occupational health hazards and demographic variables has been studied. From the data analysis it can be proved that nursing staff with GNM education have highest knowledge regarding prevention of occupational health hazards while Post basic B.SC Nursing have lowest knowledge regarding prevention of occupational health hazards and 72% of the nursing staff have moderate knowledge regarding prevention of occupational health hazards while 18% of the nursing staff have adequate knowledge regarding prevention of occupational health hazards and 10% of the nursing staff have inadequate knowledge regarding prevention of occupational health hazards.

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